

# Technical Data Sheet (TDS)

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## Industrial Grade Manganese Carbonate for Desulfurization

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### Company Information

- **Company Name:** BTLnewmaterial
  - **Email:** lixifirm@outlook.com
  - **Phone/WhatsApp:** +8618273793022
  - **Website:** manganesesupply.com
  - **Address:** Room 706, No. 154, Wuyi East Road, Niezhou Residential Committee, Caizichi Sub-district Office, Leiyang City, Hengyang City, Hunan Province, China
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### 1. Product Description

Industrial Grade Manganese Carbonate is a high-quality chemical compound primarily utilized as a reactive manganese source in flue gas desulfurization (FGD) systems. With a typical manganese (Mn) content of  $\geq 44\%$ , this product effectively supports sulfur dioxide ( $\text{SO}_2$ ) removal and facilitates manganese recovery processes. It is highly suitable for application in wet desulfurization slurry and various chemical absorption systems, offering a reliable solution for industrial emission control.

### 2. Technical Specifications

The following table outlines the key technical parameters, chemical composition, and physical properties of the Industrial Grade Manganese Carbonate.

Parameter	Typical Value
MnCO <sub>3</sub> Purity	≥ 98%
Manganese (Mn) Content	≥ 44%
Particle Size	100–200 mesh
Moisture	≤ 1.5%
Bulk Density	0.9–1.2 g/cm <sup>3</sup>
Acid Reactivity	≥ 95%
Iron (Fe)	≤ 0.1%
Calcium (Ca)	≤ 0.3%
Magnesium (Mg)	≤ 0.3%
Lead (Pb)	≤ 20 ppm
Arsenic (As)	≤ 10 ppm
Cadmium (Cd)	≤ 5 ppm

### 3. Key Features

The Industrial Grade Manganese Carbonate offers several distinct advantages for industrial applications. It serves as a highly reactive manganese source for SO<sub>2</sub> absorption and acid neutralization. The product supports efficient manganese leaching and recycling within desulfurization systems. Furthermore, its controlled iron (Fe) content optimizes catalytic oxidation efficiency, while the low levels of heavy metals such as lead (Pb), cadmium (Cd), and arsenic (As) ensure strict environmental compliance. The consistent particle size of 100–200 mesh guarantees excellent slurry stability and mass transfer efficiency, making it perfectly suited for wet FGD processes.

### 4. Applications

This product is extensively applied across various industrial sectors for emission control and chemical processing.

- **Flue Gas Desulfurization (FGD):** The manganese carbonate reacts with the acid generated from SO<sub>2</sub> absorption to form soluble Mn<sup>2+</sup> species, thereby enabling highly efficient sulfur removal.
- **Power Plant Emission Control:** It is widely used in wet scrubber systems to significantly reduce SO<sub>2</sub> emissions from power generation facilities.
- **Metallurgical Off-Gas Treatment:** The product improves sulfur removal efficiency in smelting operations, ensuring cleaner exhaust gases.
- **Chemical Processing Plants:** It supports acid gas neutralization and recovery processes in complex chemical manufacturing environments.
- **Multi-Stage Slurry Systems:** Specifically applied in systems designed for high SO<sub>2</sub> concentration treatment, ensuring robust and continuous operation.

## 5. Packaging & Supply

To ensure product integrity during transportation and storage, the Industrial Grade Manganese Carbonate is packaged securely.

- **Packaging:** Supplied in 25 kg kraft paper bags equipped with a protective PE liner to prevent moisture ingress.
- **Handling:** The product is palletized for safe and efficient export handling.
- **Shipping:** Available for bulk shipment in 20GP or 40HQ containers to meet large-scale industrial demands.
- **Samples:** Product samples are readily available upon request for desulfurization testing and evaluation.

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*Disclaimer: The information provided in this Technical Data Sheet is based on our current knowledge and experience. It is intended for guidance only and does not constitute a binding specification. Users should conduct their own tests to determine the suitability of the product for their specific applications.*